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AUTHOR French, Dan; Rothman, Sheldon
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ABSTRACT

This paper presents a research summary on ability grouping and tracking, and makes recommendations to school practitioners on successful alternative strategies to educate children from diverse backgrounds. The research reveals little evidence that ability grouping improves academic achievement, while overwhelming evidence exists that it retards the academic progress of students in low- and middle-ability groupings. The effect of ability grouping is to widen the achievement and knowledge gap between groups of students, due to differing instructional practices and teacher expectations. Ability grouping serves as a form of segregation by race, socioeconomic background, gender, language, and special education status. Furthermore, this segregation brings into question whether discriminatory procedures are used to determine ability levels. It is unclear whether ability grouping eases the task of teaching for all ability level classes, but the evidence clearly indicates that it is an ineffective means of addressing individual differences. The research indicates that schools should implement alternatives to the use of ability grouping and tracking practices. Recommendations are presented for the following topics: (1) assessment and planning; (2) grouping of students; (3) curriculum and instruction; (4) staff development; and (5) student and family support. Nine examples of schools that have made the transition from homogeneous to heterogeneous grouping are included. A brief list of terms and their definitions is included. Also appended are 59 footnotes and a 10-item bibliography. (JS)

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STRUCTURING SCHOOLS FOR STUDENT SUCCESS: A FOCUS ON ABILITY GROUPING

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Commissioner Harold Raynolds, Jr., Secretary
Chancellor Franklyn Jenifer, Ex Officio

Developed by:

The Division of School Programs
Elizabeth Twomey, Associate Commissioner

The Bureau of Student Development and Health
George S. Perry Jr., Program Director

Written by:

Dan French, Dropout Prevention Specialist
Sheldon Rothman, Educational Consultant

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From the Commissioner

A focus on ability grouping:

The dilemma of how to group students to address the wide range of student skill levels is a historical one. Traditionally, schools have grouped students by achievement levels and perceived ability . Yet, recent research questions whether this practice in fact provides a quality and equitable education for all students, especially those placed in low- and middle-ability groups.

In recent years, numerous state and national studies have documented that large numbers of our young people are unprepared academically to lead productive lives in our democratic society. Many of these studies suggest a link between students' low achievement and how schools group these students.

Given the need to raise academic achievement for all students, we must rethink traditional notions of grouping students. It is time to take a closer look at how student grouping arrangements affect the learning and social-emotional development of students, and to embrace grouping patterns which promote academic achievement for all students, irrespective of current achievement level or background.

This advisory, Structuring Schools for Student Success: A Focus on Ability Grouping, is a first step in beginning this dialogue by examining the current research on ability grouping. I hope that this paper will be a useful tool in generating discussion on this important topic.

Harold Raynolds Jr

Harold Raynolds, Jr.
Commissioner

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Ability Grouping Advisory Committee

Lisa Bryant, Principal, Bartlettt Middle School, Lowell
Carol Lee Griffin, Assistant Superintendent
Quincy Public Schools
Wayne LaGue, Assistant Superintendent
Somerville Public Schools
Leslie Hergert, Director, At-Risk Youth Initiative
Regional Laboratory for Educational Improvement of the Northeast and Islands
Beverly Lydiard, Assistant Superintendent
Minute Man Vocational-Technical School, Lexington
Anne Wheelock, Policy Analyst
Massachusetts Advocacy Center

Massachusetts Department of Education

Elizabeth Badger, Educational Specialist
Office of Planning, Research and Evaluation
Pam Chamberlain, Interagency Coordination Specialist
Bureau of Student Development and Health
John Desses, Student Services Specialist
Southeast Regional Education Center
Allan Hartman, Director of Research
Office of Planning, Research and Evaluation
Gillman Hebert, Director
Bureau of Education of Linguistic Minority Students
Sheila Lima, Educational Specialist
Office of Planning, Research and Evaluation
Connie Louie, Educational Specialist
Bureau of Curriculum, Instruction and Technologies
Marty Mittnacht, Executive Director
Division of Special Education
Beverly Miyares, Educational Specialist
Office of Planning, Research and Evaluation
Jeff Nellhaus, Educational Specialist
Office of Planning, Research and Evaluation
Laurie Slobody, Educational Specialist
Central Massachusetts Regional Education Center
Amy Sosman, Educational Specialist
Northeast Regional Education Center
Carole Thomson, Executive Director
Division of School Programs
Donna Wied, Student Services Specialist
Northwest Regional Education Center
Jack Wright, Student Services Specialist
Greater Springfield Regional Education Center

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WHY DISCUSS ABILITY GROUPING?

Ability grouping refers to the separation of children in schools on the basis of perceived ability, as determined by standardized test scores, student academic performance, less formal teacher assessment, and/or parental and student input. Generally, students are separated into high-, average-, and low-achieving classes or groups.

Ability grouping and tracking are widespread practices in most schools across the United States. Nationally, 77-88 percent of all schools utilize ability grouping practices.[1] Here, in the Commonwealth of Massachusetts, 52.8 percent of the high school graduating class of 1984 were enrolled in standard college preparatory courses; the remaining 47.2 percent were in a high academic (14.2 percent), occupational (21.6 percent), or nondirected (11.4 percent) curricula.[2]

The nation's declining economic competitiveness and the diverse needs of our growing poor and minority populations have created increased concern about our schools' ability to educate all of our students.[3] Within this context, educators are reexamining whether or not ability grouping practices provide equitable and quality educational opportunities to children from a wide variety of backgrounds.

Ability grouping raises many questions. Does homogeneous grouping benefit students? Does the practice discriminate against specific groups of students? On what basis do we make decisions about where students are placed? What kind of educational experiences do children placed in lower level ability groups receive as compared to their peers in high level groups? Is ability grouping the best way to provide quality educational experiences to diverse groups of students? How does ability grouping impact on students' affective development?

Does homogeneous grouping benefit students? Does the practice discriminate against specific groups of students?

This paper attempts to answer these questions by presenting a summary of recent research on ability grouping from kindergarten through twelfth grade. Recommendations are also offered to school practitioners on successful strategies to educate children from diverse backgrounds. It is hoped that this paper will be a useful tool - for superintendents, school committees, principals, teachers, counselors, parents, students, and community members - in assessing current instructional grouping practices and planning how to better meet the instructional needs of all students.

SUMMARY OF THE RESEARCH

The idea that students will learn better if placed in classes with other students of similar ability does not hold when the evidence is examined.

A review of the research reveals that ability grouping does not achieve the intended purpose of improving the delivery of education to the wide range of students enrolled in schools. The idea that students will learn better if placed in classes with other students of similar ability does not hold in most cases when the evidence is examined. However, in most cases, the slower pace of instruction and the lower skill levels so often used in lower-ability classes hinder, rather than enhance, student motivation and achievement. On the other hand, students in high-ability classes have been found to achieve at comparable rates when placed in heterogeneous classes.

The affective and social development of all students in schools that use ability grouping and curriculum tracking suffer from these practices, because of the limiting of social contact among students of different abilities. High-achieving students lack exposure to students with diverse backgrounds, and low-achieving students lack peer role models of academic success. The effect of ability grouping for low-achieving students is cumulative, and consequently may contribute to the set of reasons used to justify their dropping out of school.

The greatest concern over ability grouping, however, is the relationship between group or track placement and race, language, class, gender, and special education background. The disproportionate numbers of poor and minority groups in lower-ability classes suggest that student differences are misunderstood and that individual strengths are overlooked when ability groups are formed. The segregation of poor and minority students does little to assist them: their placement in lower ability classes denies them the opportunity to participate in the mainstream of education and achieve their full academic potential. In effect, ability grouping and tracking mirror and perpetuate social and economic inequalities.

A REVIEW OF THE RESEARCH
WHAT DOES IT SHOW?

Student diversity in cognitive and basic skills development, as well as social maturity, has always presented a dilemma for educators. Below are common assumptions put forth about the benefits of ability grouping, followed by a review of the research.

ASSUMPTION ONE

Ability grouping promotes achievement as students can advance at their own rate with other students of similar ability.

WHAT THE RESEARCH SHOWS

There is little evidence that ability grouping or tracking improves academic achievement, while overwhelming evidence exists that ability grouping retards the academic progress of students in low- and middle-ability groupings.

For the elementary and middle school level, many studies have found that ability grouping has no significant positive or negative impact upon student performance as a whole.[4] Other studies have found that students in low- and middle-ability groups suffer substantial academic losses.[5] One study did find that within-class grouping for mathematics at the upper elementary grades, and to a lesser extent for reading, enhances academic achievement for all students.[6]

For the high school level, most studies agree that the approximately 60% of students not in top levels do suffer losses in academic achievement. In fact, one study found that students' I.Q. scores lowered following their placement in low levels.[7]

When students do show academic achievement gains with ability grouping, they have participated in high-ability groups that have had access to enriched materials and teaching methods. Typically, these materials and instructional methods are not available or utilized with students from low- and middle-ability groups. When these factors are controlled, high-ability students have been found to perform equally as well in mixed ability classes as in homogeneous classes. The instructional advantage afforded to top-level students, then, is the critical factor in the wide gap in differing achievement rates.[8]

The instructional advantage afforded to top-level students, then, is the critical factor in the wide gap in differing achievement rates.

The evidence is also consistent in special education settings. In a review of 50 studies, it was found that there were no significant achievement benefits for students in segregated special education settings. In fact, students in integrated settings scored in the 80th percentile in math and English, while comparable students in segregated settings scored in the 50th percentile.[9]

"The longer the intervention, the more recent the study, and the better the research methods, the less evidence there is that students learned more when grouped by ability."

Thus, there is no consistent body of evidence that supports the instructional benefits of grouping or tracking as a widespread practice. In fact, "the longer the intervention, the more recent the study, and the better the research methods, the less evidence there is that students learned more when grouped by ability."[10]

ASSUMPTION TWO

Teachers can provide more appropriate materials and subject content to students of similar ability. High-ability students receive more challenging instruction, low-ability students receive opportunities for success.

WHAT THE RESEARCH SHOWS

A. Ability grouping and tracking affect instructional pace, time, and quantity, as well as teacher expectations.

Research studies have found that students in lower-ability groups and curricular tracks receive a differentiated education compared to students in high-ability classrooms.[11] High-ability groups received more time on task, more complex curriculum, more effective instruction, and more homework. Teachers spent more time planning for their high-ability classes, held higher expectations for these students, and placed higher demands on them to complete work. In low-ability classes, teachers held the workload to a minimum, accepted distractions, and rarely asked students to think critically. In these classes, teachers' low expectations often resulted in a self-fulfilling prophecy of low-performing students, thereby contributing to a cycle of failure and lowered academic achievement and motivation.[12]

In these same studies, high-track teachers gave directions more clearly, spent less time on behavior, gave more varied tasks, and voiced more encouragement and less criticism than did teachers in low-track classes. High-track students thought teachers were more concerned and less punitive than did students in low-track classes. Students in low-ability classes were generally less interested in the subject matter.[13] Interestingly, untracked and heterogeneous classes more closely resembled high-track classes than low-track classes in instruction, student behavior, time on task, and academic achievement.[14]

In a study of 300 English and mathematics teachers, high-track students studied classic and modern fiction, literary genres, the elements of good writing, and math concepts. Low-track students read young adult fiction, worked in workbooks, practiced paragraph writing and filling out job applications, and studied computation skills.[15] In other studies, special education students in resource rooms were found to spend large amounts of time doing seatwork, "with little teacher feedback or direct instruction."[16] In an international study, such dispari-

ties in curriculum and instruction were found to result in substantially different opportunities to learn mathematics in high school, and were given as the predominant reason why students in the United States lag behind students in other industrialized countries in this subject.[17]

B. Instruction in low-ability grouped classes many times may be in conflict with how students learn.

A Massachusetts study of high school curriculum found that low level courses diluted content and reduced the pace of instruction and amount of individual work assigned. Students were not expected to synthesize material or apply content to problem situations; rather, the curriculum content had a recipe approach that emphasized component skills.[18]

Another study, based on data collected from the 1988 Massachusetts Educational Assessment Program, found that reasoning processes were emphasized more with high- than low-ability students. For example, structural cues in reading were stressed with lower achieving students while the evaluation of evidence formed a greater part of the curriculum in high ability classes. Similarly, while such topics as variables, relations, and estimation were emphasized more in high-ability classes, fractions and numeration were stressed more with low-ability classes.[19]

Some educators argue that the present approach to teaching low-ability and tracked students is "an oversimplification of learning based on an outdated theory of human cognition."[20] Rather than acquiring knowledge in microscopic components divorced from past experiences, we learn within the context of already acquired information. Meaning, relevancy, and concepts, then, are primary in learning new material for all students, including low-achieving students. Basic skills are naturally acquired within this context. Such research calls into question the emphasis within low tracks on skills development and lower order cognition, rather than contextual learning and higher order cognition.

C. Ability grouping and tracking have a cumulative effect of widening the achievement and knowledge gap between groups of students.

The net effect of ability grouping and tracking is to exaggerate initial differences between students, rather than to accommodate them. Because students in lower-ability classes tend to receive lower-level instruction and curriculum at a slower pace, the gap between what students learn and know in lower-ability classes and what students learn and know in average- and higher-ability classes increases each year. By high school graduation, this knowledge gap is substantial, resulting in differential learning experiences.[21]

The net effect of ability grouping and tracking is to exaggerate initial differences between students, rather than to accommodate them.

Once assigned to a low-ability class or curriculum track, the lack of exposure to higher order thinking skills and concepts prevents students from moving to a higher-ability level. The cumulative achievement difference between low- and high-ability students by the end of eighth grade rarely allows for new placement opportunities in high school.[23] A Massachusetts study found that 88 percent of students in English and 92 percent of students in math took the subject at the same level in their sophomore year as in their freshman year. In fact, no more than 5 percent of students who began at one level ever moved to a higher level of coursework.[23]

The little movement that does exist is usually downward, creating a narrowing of access for students to receive high quality instruction.

The little movement that does exist is usually downward, creating a narrowing of access for students to receive high quality instruction.[24] In the same Massachusetts study, while 20 percent of students took Algebra I at an honors level, only 8 percent of students took a three-year sequence of honors math courses.[23] Thus, once assigned to a low-level group or track, most students are cut off from future options available in higher levels or tracks.

ASSUMPTION THREE

Less-capable students will suffer less emotional and educational damage from being in classrooms of peers with similar ability levels than they would from daily contact with higher achieving peers. Students are challenged to do their best in a more realistic range of competition.

WHAT THE RESEARCH SHOWS

A. Ability grouping can predetermine students' future opportunities and aspirations.

In high school, differences in curriculum and instruction give students in college preparatory tracks the advantage in college admissions, the probability of college acceptance, and later educational and occupational attainment. Students in the highest ability groups demonstrate the highest level of educational aspiration, while the lowest track students show the lowest.[26] It is less likely for students enrolled in noncollege preparatory tracks to achieve prerequisites for college attendance, thereby limiting their future opportunities. These groupings are also powerful predictors for dropping out of school and future delinquent behavior, irrespective of class, race and I.Q.[27]

Yet, decisions about high school tracks are often made in late elementary and seventh and eighth grades based upon teacher and guidance counselor recommendations, test results, number of prerequisite courses taken, and student and parent opinion. The notion that students make decisions about curriculum tracks when they are only 10-13 years old is disturbing. These decisions may affect a student's high school experience and beyond, yet many times the guidance offered by school personnel may not reflect the student's potential and abilities.[28]

B. The affective development of students suffers with ability grouping and tracking.

All research summaries on ability grouping agree that the affective development of students depends upon the group to which one is assigned.[29] High-achieving students have high self-concepts in both homeogeneous and heterogeneous groupings. However, the self-concepts of many high-achieving students in homogeneous groupings are based upon self-comparison with students in low-achieving groups. Low-achieving students in homogeneous classes tend to have lower self-concepts than low-achieving students in heterogeneous classes. Low-ability grouped students and students in special education pull-out programs typically suffer a lowered self-esteem and low self-expectations, while also facing the unspoken social stigma of being in the "dumb" class. High-ability grouped students lack exposure to students from diverse backgrounds, while experiencing greater stress from being in a classroom where individual competition is often highlighted.[30]

C. Ability grouping and tracking have negative effects upon peer interactions within schools.

Students tend to choose friends from among students who take the same classes, based upon whom they come in contact with most frequently during the school day and whom are perceived to be most like themselves. As a result, friendship choices among students are limited by their ability groups or curriculum track.[31] Because the composition of students in ability groups tends to be segregated by class and race, there are fewer opportunities for minority and nonminority, and low-income and more affluent, students to become friends and learn from each other.[32] This trend tends to increase over time, creating cliques or social groups that mirror the composition of the school's ability groups and tracks. These friendship choices also affect later educational choices, such as high school curriculum track and college aspirations.[33]

D. Ability grouping serves as a form of segregation by race, socioeconomic background, gender, language, and special education status.

The idea that our schools operate a meritocracy - a system that bestows rewards upon those who merit them - is not confirmed in practice. All relevant studies have found that a disproportionate number of students from racial and language minority backgrounds, as well as low-income and disabled students, are placed in low-ability groups, compensatory education programs, and special education classes.[34] Girls also tend to be placed in low-level science and mathematics classes.[35] For example, a study by the Ann Arbor, Michigan, Public Schools found that while 46% of Black students were placed in below-grade-level reading groups in grades one through six, only 23% of all students were in these groups. Similarly, while

All relevant studies have found that a disproportionate number of students from racial and language minority backgrounds, as well as low-income and disabled students, are placed in low-ability groups.

only 30% of Black students were placed in above-level reading groups, over 60% of all students were placed in these groups.[36]

Here, in the Commonwealth, a 1984 study of high school transcripts found that White students took more science, math, foreign language, and college preparatory English courses than did Black and Hispanic students; while minority students took more remedial and business English courses. Girls took more business courses than boys, and students whose fathers had at least a college diploma took far more academic and college preparatory coursework than did students whose fathers had less education. While acknowledging that formal tracking systems have all but disappeared in high schools, the report concludes that minority and majority students, and female and male students, experience a differentiated education in terms of educational goals (of courses taken) and by levels of academic coursework. In practice, the report stated, leveling systems serve as a sorting rather than an individualizing function.[37]

Many educators believe that the chances of achieving quality, integrated education in schools that practice ability grouping and tracking is slight.

In urban districts, this phenomenon has limited the achievements of racial desegregation. In effect, what is occurring in some districts is de facto segregation, with race, language, socioeconomic background, gender, and special education status associated with ability groups and track placements. Consequently, many educators believe that the chances of achieving quality, integrated education in schools that practice ability grouping and tracking is slight.[38]

Although ability grouping and curriculum tracking do not necessarily represent discriminatory intent by school administrators, student assignment practices have been challenged in court on the basis of their results. In 1967, the judge in Hobson, et al., vs. Hansen, et al., found that, because of the disproportionate number of poor and minority children in low-track classes, the curriculum placement system used by the Washington, D.C. Public Schools did not provide equal protection to all students and resulted in de facto segregation.[39]

E. This disparity in placement by race, class, language, gender, and special education status brings into question whether discriminatory procedures are used to determine ability levels and tracks.

Many educators believe that significant percentages of students may be misclassified because of imperfections of tests, the use of tests as a sole predictor of achievement, and placement procedures that are not sensitive to race, class, gender, language, and special needs differences.[40] For example, many poor and minority students tend to enter school with inadequate reading skills, although they may have high cognitive skills.[41] Yet, most schools place students into ability groups on the basis of standardized tests and/or language-based assessments, despite research that consistently shows the discriminatory nature of these tests. In these cases, it is extremely likely that poor and minority students will be misplaced for subjects such as science and mathematics.

Educators also suggest that such segregation occurs not because of actual student ability or aspirations, but because of society's and the school's perception of student ability and aspirations based upon the student's race, class, language, gender, and special education status. Teachers have been found to behave differently, adjust their goals differently, teach differently, and reward and punish differently, based upon the race and class of students.[42] For example, teachers sometimes associate lack of proficiency in English with low academic ability, and therefore expect less from language minority students and do not provide them with the intellectual stimulation that is afforded to English-only speaking students.[43]

Indeed, one study found that when the expectations and classroom experiences of low-ability students were restructured to be similar to those of high-ability classrooms, students performed in ways characteristic of high track students. This suggests that schooling outcomes might be more of a "function of the process of schooling rather than characteristics of the student body."[44]

ASSUMPTION FOUR

Ability grouping eases the task of teaching, and is the best way to cope with the broad spectrum of student diversity.

WHAT THE RESEARCH SHOWS

A. It is unclear whether ability grouping does in fact ease the task of teaching for all ability level classes.

For example, while the task of teaching may be easier when teaching high-ability-grouped classes, teaching students in low- and middle-ability-grouped classes may be more difficult than teaching heterogeneously-grouped students. Low-ability grouped classes tend to create undesirable peer structures and environments. Segregating the most successful students often creates a climate in low-ability groups that discourages focused study, thereby creating a "critical mass of discouragement."[45] This negative peer culture can often result in rebellious behavior and misconduct in class.[46]

Segregating the most successful students often creates a climate in low-ability groups that discourages focused study, thereby creating a "critical mass of discouragement."

B. Ability grouping is an ineffective means of addressing individual differences.

Typically, ability grouping has little impact upon the heterogeneity of a class. Because students are usually divided into ability groups based upon performance, there remains significant heterogeneity in terms of student I.Q. and ability levels.[47]

Yet, the most common form of instruction tends to be competitive, whole-group instruction, with common assignments, due dates and tests, and uniform evaluation and grading practices.

Most teachers teach uniformly, rather than matching instruction to meet a diversity of learning styles. Too few teachers regularly utilize interactive and student-centered instructional approaches such as cooperative learning. Such instructional practices do not consider the diverse learning needs of each classroom of students, and challenge the notion that ability grouping leads teachers to use more appropriate materials and instruction with each different group of students.[41]

CONCLUSION

In reviewing the research, it is clear that the historic assumptions about ability grouping do not hold true. The widespread use of ability grouping is at cross-purposes with increasing concerns that students are receiving differentiated educations based upon race, socioeconomic background, language, gender, and special education status. Instead of creating school structures that minimize and compensate for initial disadvantages in learning, ability grouping increases these disadvantages. If we believe that our public schools should respond to the diverse backgrounds and learning strengths and styles of all of our students, then we need to consider alternative ways of structuring them.

It is recommended that schools consider eliminating the use of widespread ability grouping and tracking practices, and implement alternatives.

RECOMMENDATIONS: WHAT SCHOOL PRACTITIONERS CAN DO

Based upon the research summarized in this paper, it is recommended that schools consider eliminating the use of widespread ability grouping and tracking practices, and implement alternatives. However, changing institutionalized ability grouping practices is not an easy task. With this in mind, the following recommendations are made to assist in implementing alternative educational practices that benefit all students.

ASSESSMENT AND PLANNING

1) Convene a task force of interested members of the school community to assess present practices of ability grouping and explore alternatives. Include student, teacher, parent, community, and administrator representation on the task force. Collect data on your school or district's group and course placements, and analyze it by race, socioeconomic background, language, gender, and special education status to determine trends. Use this data to discuss the following questions:

   - What are the goals of grouping in our school? Are those goals being met by our use of ability grouping?
   - What is our school's procedure for placing students into ability groups? Does the group placement procedure use a variety of measures, or is placement based on only one or two tests? Are there any questions about the reliability and validity of these tests for the population of our school?
   - What is the composition of each ability group? Is there a predominance of one category of students in differing level groups?
   - Do the groups have labels that reflect their ability levels, and does this have a stigmatizing affect on students?
   - Are there opportunities for students to change groups regularly? Does the composition of the group change frequently?
   - Are there ample opportunities for interaction among students from different ability groups?
   - Do teachers adapt their teaching methods for the appropriate ability level, without sacrificing the quality and quantity of the material? and
   - What successful practices are employed within high ability classes that can be replicated school-wide?

2) Distribute the results of your assessment and encourage public discussion.

3) Reaffirm, in the form of a mission statement, a fundamental school-wide belief that all students can learn, achieve, and be successful. Acquaint all members of the school community with the works of educators such as Ron Edmonds and Benjamin Bloom, both of whom have demonstrated that all children, with few exceptions, can achieve at high levels.

Reaffirm, in the form of a mission statement, a fundamental school-wide belief that all students can learn, achieve, and be successful.

4) Visit other schools and districts that have successfully transitioned from homogeneous to heterogeneous grouping of students.

5) Develop a PK-12 plan of changing the school's grouping practices, and present recommendations and a timetable for regrouping students. Ensure that this process is a participatory one.

   In developing a plan to eliminate or reduce ability grouping, plan a phase-out approach that begins with the early elementary grades and moves upwards over a period of years. This approach has the best chance for success as students in the early elementary grades have the least experience with ability grouping, and thus have the narrowest knowledge and achievement gap between high- and low-achieving students. At the high school level, upgrade the curriculum and instruction provided in low-track and ability-level courses, and reduce the number of ability levels and multi-track courses.

6) Once a plan is developed and approved, conduct parent and community education forums and staff development seminars on the plan.

GROUPING OF STUDENTS

1) Consider the following principles as guidelines to use whenever decisions are being made to group students for instruction. Instructional grouping should:

   - Promote improved academic achievement;
   - Provide equitable access to curriculum and enrichment opportunities and varied instructional approaches;
   - Enhance student self-esteem; and
   - Promote instruction between diverse students.

2) Employ heterogeneous small group learning situations frequently. Within-class groups need not be permanent, but should be reassessed and reconfigured periodically to provide students with opportunities to work with a diverse

range of other students. Groups can be formed according to interests or learning style rather than perceived ability.

Create multi-grade classrooms to increase opportunities for peer tutoring and cross-age groupings of students.

3) Create multi-grade classrooms to increase opportunities for peer tutoring and cross-age groupings of students.

4) Consider the following principles as guidelines to use if homogeneous grouping is employed:

   - Limit its duration;
   - Build flexibility into group assignments to allow for movement between groups;
   - Group homogeneously for specific skill areas only, preferably for reading and mathematics, rather than across all subjects;
   - Employ this grouping with the goal of reducing or eliminating achievement gaps in specific skill areas. This includes designing curriculum and instruction for each group that better meets their needs, and providing low-achieving students with accelerated instruction; and
   - Assess regularly the impact and effectiveness of the grouping arrangement.

5) Consider using the "Joplin Plan," one homogeneous practice that has demonstrated successful results for all students, when used in limited duration for specific skill areas. This approach groups students by skill level across ages and grades for reading and/or mathematics. Such a grouping arrangement has been found to remove some of the social labelling attached to homogeneous grouping, while improving achievement levels of students."

6) Discourage sole use of standardized testing for placement or determination of student ability. Increase use of testing and assessment practices which facilitate identifying students' learning styles and assess level of academic progress.

7) Recruit students into courses, ability levels, and curriculum tracks in which they have been traditionally underenrolled, (for example, females into science and mathematics courses), and provide support for them to succeed.

8) Increase parent involvement in student placement decisions through parent newsletters on placement, parent-student-counselor-teacher conferences, and parent placement preference forms. Provide parents with goals of the school regarding the grouping of students.

9) Avoid all labels, such as at-risk, transition, or remedial, for any program or class and for all students in them.

CURRICULUM AND INSTRUCTION

1) Employ less whole-group instruction and individual seatwork, while increasing the use of active learning pedagogy and student-to-student instructional strategies that require multiple abilities of students. Build in incentives for student group interaction, while establishing cooperative group work as an important value. In particular, increase the use of:

    - cooperative learning;
    - peer tutoring;
    - project-based learning;
    - multiple-ability instructional strategies;
    - learning centers;
    - cross-age learning opportunities; and
    - competency-based instruction.

    Cooperative group learning views heterogeneity as a resource rather than a problem, and has been found to increase achievement for all students, while diminishing the achievement gap among White, Black, and Hispanic students. It has also resulted in gains in cross-racial friendships and in better attitudes of students towards different racial groups.[50] Peer tutoring has been found to result in cognitive and affective gains for older, low-achieving tutors.[51] Project-based learning can increase students' engagement in the learning process. Multiple ability instructional strategies, or employing a variety of multisensory and hands-on instructional approaches, have been found to be especially important in building upon the learning strengths of low-ability readers.[52]

Cooperative group learning has been found to increase achievement for all students, while diminishing the achievement gap among White, Black, and Hispanic students.

2) Annually assess students' learning styles and strengths, and base instruction upon these findings. Teach to students' strengths to increase student success, while integrating instruction designed to bolster students' areas of weakness.

3) Develop a common core curriculum for all students that is concept-based, interdisciplinary and thematic rather than sequential, is rooted in real-life experiences, and reflects students' cultural and socioeconomic backgrounds.

4) Structure the school around cross-discipline teacher teams that work with designated clusters of students over a period of more than one year. Provide these teams with common planning time to develop an interdisciplinary curriculum approach. Give these teams control over scheduling and encourage them to design learning blocks of time that allow for a real-world, problem-solving approach to instruction.

5) Set as a curriculum priority for all students the acquisition of higher order thinking skills - reasoning, problem-

solving, analyzing, synthesizing, logic, defending points of view, experimentation, model-building, and evaluation.

Decrease the use of competitive grading and marking to evaluate students, and increase the use of exhibitions, portfolios, and other displays of student learning.

6) Assess students' academic progress frequently, including student self-assessment and group assessments. Increase the use of nonevaluative feedback to students. Decrease the use of competitive grading and marking to evaluate students, and increase the use of exhibitions, portfolios, and other displays of student learning. Consider eliminating the use of course grades and replacing them with narrative assessments of progress, or base grades on relative and continuous progress.

7) Base in-class rewards and incentives upon shared group goals and accomplishments. Regularly highlight the range of learning strengths within each classroom.

8) Whenever possible, decrease bilingual, special education and compensatory education students' isolation from the mainstream. Utilize school-based teams and team teaching between regular education and bilingual, special education and compensatory education teachers.

STAFF DEVELOPMENT

Conduct staff development series in the following areas:

1) Learning styles and matching instruction to meet the diversity of learning styles and skill levels within a classroom;

2) The social, emotional, and cognitive development of students. Include planning sessions on how better to meet students' developmental needs in these areas within the curriculum and the school day;

3) The cultural and socioeconomic backgrounds of the school's student population, including examining common, societal stereotypic beliefs of what students can and cannot achieve based upon their background;

4) Current research on teacher expectations. Plan strategies on how to raise expectations for all students, while providing them with necessary support; and provide follow-up peer observations in classrooms to assist teachers in implementing new strategies;

5) Making the transition from homogeneous to heterogeneous grouping, including phases of change that the teacher will experience, and presentations of practitioners who have experienced a transition to heterogeneous grouping and who can speak to how teachers will benefit from teaching heterogeneous groups of students. Provide follow-up in the form of peer support groups and peer observation; and

6) Staff teaming, including team-building, how to function as a team, developing interdisciplinary curriculum, scheduling, monitoring student progress, and team teaching.

STUDENT AND FAMILY SUPPORT

1) Create heterogeneous teacher advisory groups to support students' social and emotional development, as well as facilitate interaction between students from diverse backgrounds.

2) Provide specific in-class and before- and after-school academic support services to students, including tutoring and peer tutoring.

3) Conduct parent seminars on how to better support a child's education at home, parent advocacy, parent involvement in decision making, and developing constructive relationships with teachers and administrators.

TRANSITIONING TO HETEROGENEOUS STUDENT GROUPING: SOME EXAMPLES

Transitioning from homogeneous to heterogeneous grouping of students is not an easy process. However, there are examples of schools and districts that have successfully undertaken such an initiative. Below are just a few of these examples.

Desert Sky Junior High School Phoenix, AZ

- From the fall of 1984 to the fall of 1987, Desert Sky Junior High School in Phoenix, Arizona, transitioned from having 38 remedial and accelerated classes to having none. All students, with the exception of certain classes, work in mixed-ability learning settings. To get to this point, all teachers received staff development from John Hopkins University in Cooperative Learning, a team learning concept that became the key instructional strategy in mixed-ability classrooms. Three years of test data has shown that students of all ability levels have benefited from heterogeneous grouping and cooperative learning."

Contact: Janet Altersitz, Principal
Desert Sky
Junior High School
5130 West Grovers
Glendale, AZ 85308
(602) 866-5824

Malden Public Schools Malden, MA

- Prior to the 1986-1987 school year, all junior high school students in the Malden Public Schools were grouped homogeneously for all subject areas. Grouping for all subject areas was determined by the level of math group the student was placed in, based upon the sixth grade teacher recommendations. Beginning in the fall of 1986, the district began transitioning all three junior high schools to middle schools. Each school was clustered into groupings of approximately 100 students each, with staff teams assigned to each cluster. Staff received common planning time to create interdisciplinary curriculum, monitor student activities, and plan cluster activities. All clusters have a heterogeneous mix of students, and all classes, except for math are heterogeneously grouped.

Contact: Barry Ring
Coordinator of
Middle Schools
Malden Public Schools
77 Salem Street
Malden, MA 02148
(617) 397-7271

Denver Public Schools Denver, CO

- In the fall of 1989, the Denver, Colorado, Board of Education approved a plan to raise student achievement by eliminating all remedial classes, and, instead, placing low-achieving pupils in regular classrooms. Low-achieving students now receive instructional support in class, rather

than in pull-out situations. As part of the initiative, the district is revamping the curricula to "reflect the varied cultures of the community" and to incorporate critical thinking and problem-solving skills. Reading instruction is provided in every classroom, and testing focuses on needs assessment rather than measuring achievement."

Contact: Evie Dennis
Deputy Superintendent
Denver Public Schools
900 Grant Street
Denver, CO 80203
(303) 837-1000 Ext. 2200

- In 1988-1989, the Discovery Academy at Boston's Mackey Mosaic Middle School transitioned from a program serving solely high-risk students to one that provides a multigrade cluster experience for students of all performance levels. The program sets an expectation of success for all students. The curriculum is interdisciplinary, with a focus upon experiential and cooperative learning rooted in students' own experiences and cultural backgrounds.

Mackey Mosaic Middle School Boston, MA

Contact: Berta Berriz, Teacher
Mackey Middle School
90 Warren Avenue
Boston, MA 02116
(617) 266-1968

- In 1987, the San Diego, California, City Schools launched a seven-year effort to phase out all remedial courses in high schools and middle schools. As part of this effort, the curriculum for low-achieving students was shifted from a focus upon component skills to one of contextual learning and problem-solving. "By the time San Diego's class of 1994 graduates from high school, all graduates will have taken courses that meet the admission requirements of the University of California system."

San Diego City Schools San Diego, CA

Contact: Kermeen Fristrom
Director of Basic Education
San Diego City Schools
4100 Normal Street
San Diego, CA 92103
(619) 293-8686

- Over the last three years, the Chestnut Hill Community School in Belchertown, Massachusetts, has transitioned from five ability levels to only two levels for all students. The transition came about as a result of concern within the cluster staff teams about the negative social labelling of students that was occurring as a result of ability grouping. Today, not only has the social climate of the school improved, but staff teams report that the level of classroom discussion and dialogue has become qualitatively better.

Chestnut Hill Community School Belchertown, MA

Contact: Joseph Giroux, Principal
Chestnut Hill
Community School
59 State Street
Belchertown, MA 01007
(413) 323-7611

Accelerated Schools Project
Stanford University
Stanford, CA

- Henry Levin, a Stanford University professor, has initiated a new project with 40 schools nationwide to accelerate the learning pace for disadvantaged students. Rather than slowing down the pace of instruction and "dumbing down" the curriculum, Levin believes that the curriculum needs to focus on higher order thinking with a quickened instructional pace. Consequently, all low-achieving students are placed in accelerated classes in project schools.[16]

Contact: Henry Levin, Professor
SERAS Building
School of Education
Standford University
Standford, CA 94305-3084
(415) 723-0840

Ann Arbor Public Schools
Ann Arbor, MI

- In 1986-1987, the Ann Arbor, Michigan, Public Schools adopted a policy statement that all instructional grouping shall be based on improving achievement of all students; equitable access to curricular opportunities and a variety of instructional strategies; enhancement of self-esteem; and maximum guided interaction among diverse groups of students. A five-year plan for reshaping instructional grouping based upon these guidelines was developed, and each school was provided with seed funds to transition to heterogeneous grouping and to ensure staff and parent participation in the process.[17]

Contact: Doreen Poupard-Tice
Assistant Superintendent
Ann Arbor
Public Schools
2555 South State Street
Ann Arbor, MI 48104
(313) 994-2252

Middle School of the
Kennebunks
Kennebunk, ME

- When the Middle School of the Kennebunks in Maine transitioned from a junior high school to a middle school structure, the staff decided to also transition to heterogeneous grouping of all students. To facilitate this, the school was divided into clusters, with staff teams assigned to each cluster. Daily common planning time for each team is used to create interdisciplinary curriculum and design instructional approaches that meet the developmental needs of all of their students. The school's Project GRASP (Giftedness Reaching And Serving People) is an

enrichment program which seeks out each students' special talents and provides workshops in a wide variety of academic and nonacademic areas for all students.

Contact: Sandra Caldwell
Principal
Middle School of the Kennebunks
87 Fletcher Street
Kennebunk, ME 04046
(207) 985-2912

APPENDIX
DEFINITION OF TERMS

Tracking and ability grouping vary from school to school in the number of levels taught, the number of subjects tracked, and the procedures used to place students. However, in general, tracking and ability grouping practices have the following predictable characteristics:

- *the intellectual ability of students is judged and used to determine placements;*
- *classes and tracks are labelled according to perform ance levels or desired postsecondary destinations;*
- *curriculum and instruction is tailored to perceived needs and abilities; and*
- *ability groups and tracks form a hierarchy of ability levels."*

Ability grouping: refers to the separation of children in schools on the basis of perceived ability, determined by standardized test scores, student academic performance, less formal teacher assessment, and/or parental and student input. Generally, students are separated into high-, average-, and low-achieving classes. Groupings may remain together for a complete school day or they may be regrouped for each lesson.

Between-class ability grouping: a grouping pattern in which students are grouped into homogeneous classes within a school, so that the range of abilities within a single classroom is narrower than the range of abilities within the entire grade level in a school.

Heterogeneous grouping: a grouping pattern in which all students, regardless of ability, are taught the same curriculum in a single group.

Sequencing: when course eligibility is determined by the passing of prerequisite courses. Sequencing plays a major role in high school ability grouping.

Tracking: Tracking means full curriculum differentiation. Most high schools are divided into college preparatory, vocational, and general academic curriculum tracks. Although students are supposed to choose their curriculum tracks, they may be counseled into tracks according to perceived ability and/or postsecondary aspirations. In many schools, tracking and ability grouping overlap, as schools provide both college-preparatory and general academic curriculum tracks, while also providing different ability level classes in academic classes."

Within-class ability grouping: a grouping pattern in which students in a heterogeneous classroom are placed in smaller groups according to ability for specific lessons and subjects.

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Massachusetts Department of Education
Office of Planning, Research and Evaluation
1385 Hancock Street
Quincy, Massachusetts 02169-05183